

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
TYLER DIVISION**

PARITY NETWORKS LLC,

§

*Plaintiff,*

§

v.

§ CIVIL ACTION NO. 6:17-cv-00683

HEWLETT PACKARD ENTERPRISE  
COMPANY,

§ JURY TRIAL DEMANDED

*Defendant.*

§

**ORIGINAL COMPLAINT**

Plaintiff Parity Networks LLC (“Plaintiff” or “Parity Networks”), by and through its attorneys, for its Original Complaint against Hewlett Packard Enterprise Company (“Defendant” or “HPE”), and demanding trial by jury, hereby alleges as follows:

**I. NATURE OF THE ACTION**

1. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 271, *et seq.*, to enjoin and obtain damages resulting from Defendant’s unauthorized use, sale, and offer to sell in the United States of products, methods, processes, services and/or systems that infringe Parity Networks’ United States patents, as described herein.

2. HPE manufactures, provides, uses, sells, offers for sale, imports, and/or distributes infringing products and services; and encourages others to use its products and services in an infringing manner, including their customers, as set forth herein.

3. Parity Networks seeks past and future damages and prejudgment and post-judgment interest for HPE’s past infringement of the Patents-in-Suit, as defined below.

## **II. PARTIES**

4. Plaintiff Parity Networks is a limited liability company organized and existing under the laws of the State of Texas. Parity Networks' registered agent for service of process in Texas is InCorp Services, Inc., 815 Brazos Street, Suite 500, Austin, Texas 78701.

5. On information and belief, Defendant HPE is a corporation organized under the laws of Delaware, having an established place of business at 5400 Legacy Drive, Plano, Texas 75024. HPE's registered agent for service of process in Texas is CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201-3136.

## **III. JURISDICTION AND VENUE**

6. This is an action for patent infringement which arises under the patent laws of the United States, in particular, 35 U.S.C. §§ 271, 281, 283, 284 and 285.

7. This Court has exclusive jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

8. On information and belief, venue is proper in this district pursuant to 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b) because Defendant has a regular and established place of business in this Judicial District, has transacted business in this Judicial District, and has committed and/or induced acts of patent infringement in this Judicial District.

9. On information and belief, Defendant HPE is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this Judicial District.

#### IV. FACTUAL ALLEGATIONS

##### PATENTS-IN-SUIT

10. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 6,252,848 (the “848 Patent”), entitled “System Performance in a Data Network Through Queue Management Based on Ingress Rate Monitoring,” issued on June 26, 2001.

11. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 6,643,287 (the “287 Patent”), entitled “Apparatus and method for forwarding encapsulated data packets on a network having multiple links between nodes,” issued on November 4, 2003.

12. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 6,763,394 (the “394 Patent”), entitled “Virtual Egress Packet Classification at Ingress,” issued on July 13, 2004.

13. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 6,870,844 (the “844 Patent”), entitled “Apparatus and methods for efficient multicasting of data packets,” issued on March 22, 2005.

14. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 7,107,352 (the “352 Patent”), entitled “Virtual Egress Packet Classification at Ingress,” issued on September 12, 2006.

15. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 7,468,978 (the “978 Patent”), entitled “Apparatus and method for forwarding encapsulated data packets on a network having multiple links between nodes,” issued on December 23, 2008.

16. Together, the foregoing patents are referred to herein as the “Patents-in-Suit.” Parity Networks is the assignee of the Patents-in-Suit, and has all substantial rights to sue for infringement and collect past and future damages for the infringement thereof.

DEFENDANT'S ACTS

17. HPE provides software and services directed to detection, analysis and monitoring of data flow in a data network environment, including Hewlett-Packard (“HP”) branded products.

18. For example, HPE provides IP routing solutions that provide high-performance networking for cloud, data center, and branch office applications. The HP MSR Router Series provides traffic management and queuing. Filters are provided to drop or accept packets, and/or allow dedicated hardware shaping queues for traffic directed to control processors.

19. In the HP MSR Router Series, individual ports note header field combinations and values and egress ports for transmission for received packets. A lookup table compares headers with rules associated with the egress ports and field values, and the system returns a rule determination for the packet. An access control list (“ACL”) provides filtering/dropping of packets based on various criteria including the ingress and/or egress port.

20. The HPE routers implement Quality of Service (“QoS”) mechanisms. In that regard, the input ports receive packets from a plurality of flows or services. Packets are directed to output queues upon application of one or more policies.

## QoS overview

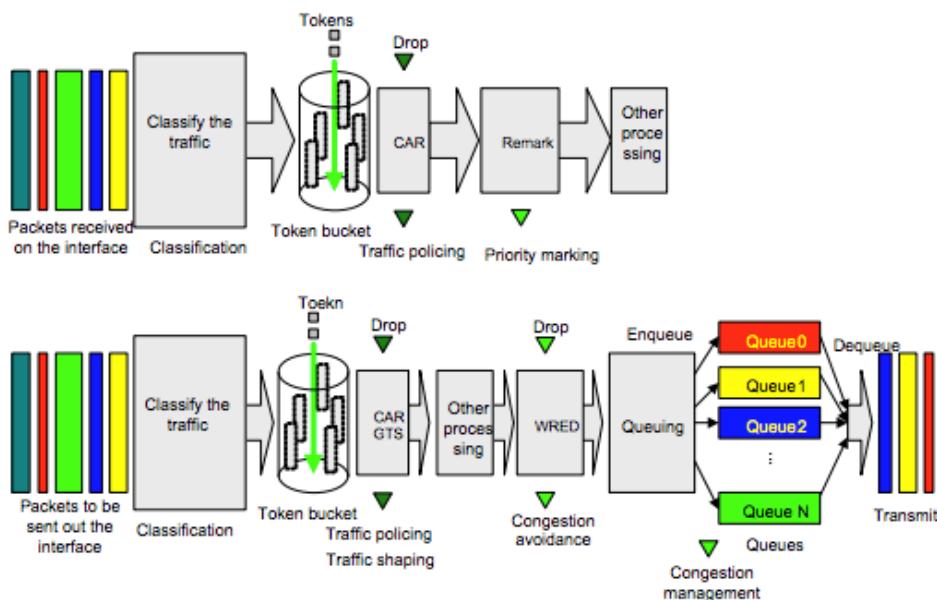
In data communications, Quality of Service (QoS) is a network's ability to provide differentiated service guarantees for diversified traffic in terms of bandwidth, delay, jitter, and drop rate.

Network resources are scarce. The contention for resources requires that QoS prioritize important traffic flows over trivial ones. For example, when bandwidth is fixed, more bandwidth for one traffic flow means less bandwidth for the other traffic flows. When making a QoS scheme, consider the characteristics of various applications to balance the interests of diversified users and to utilize network resources.

HP MSR Router Series ACL and QoS Configuration Guide(V5), p. 18,  
[https://support.hpe.com/hpsc/doc/public/display?docId=emr\\_na-c04409311](https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-c04409311).

21. QoS is implemented by HPE at multiple points in the network, as shown below. The traffic classifier identifies and classifies the traffic for subsequent QoS actions. “You can configure the QoS module to perform traffic policing for incoming traffic, traffic shaping for outgoing traffic, congestion avoidance before congestion occurs, and congestion management when congestion occurs.” HP MSR Router Series ACL and QoS Configuration Guide(V5), p. 20, [https://support.hpe.com/hpsc/doc/public/display?docId=emr\\_na-c04409311](https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-c04409311).

**Figure 4 QoS processing flow**



HP MSR Router Series ACL and QoS Configuration Guide(V5), p. 20, [https://support.hpe.com/hpsc/doc/public/display?docId=emr\\_na-c04409311](https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-c04409311).

22. HPE instructs its customers to infringe the Patents-in-Suit, including through its provision of product documentation and support at <https://www.hpe.com/us/en/support.html>.

23. In addition, HPE provides installation and support services, including as described in HPE Installation Service Data Sheet (November 2016), <https://h20195.www2.hpe.com/V2/GetPDF.aspx/5981-9356EN.pdf>.

24. On information of belief, Defendant HPE also implements contractual protections in the form of license and use restrictions with its customers to preclude the unauthorized reproduction, distribution and modification of its software and systems. Moreover, on information and belief, Defendant HPE implements technical precautions to attempt to prevent customers from circumventing the intended operation of HPE's products.

## **V. COUNTS OF PATENT INFRINGEMENT**

### **COUNT ONE** INFRINGEMENT OF U.S. PATENT NO. 6,252,848

25. Parity Networks incorporates by reference its allegations in Paragraphs 1-24 as if fully restated in this paragraph.

26. Parity Networks is the assignee and owner of all right, title and interest to the '848 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

27. On information and belief, Defendant HPE, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 15 of the '848 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '848 Patent. Defendant HPE is thus liable for direct infringement of the '848 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the HPE MSR Router Series (Also referred to as the HP MSR Router Series), including as implemented in the HPE MSR4000, which includes multiple ports with output queues and wherein the ingress ports are configured to receive packets from multiple ingress flows.

28. On information and belief, at least since the receipt of written notice and the filing of the Original Complaint, Defendant HPE, without authorization or license from Parity Networks,

has been and is presently indirectly infringing at least claim 15 of the '848 Patent, including actively inducing infringement of the '848 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that HPE knows or should know infringe one or more claims of the '848 Patent. HPE instructs its customers to make and use the patented inventions of the '848 Patent by operating HPE's products in accordance with HPE's specifications. HPE specifically intends its customers to infringe by implementing its operating system to manage QoS based on a traffic classifier to classify, police, shape and mark traffic in an infringing manner.

29. As a result of HPE's infringement of the '848 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT TWO  
INFRINGEMENT OF U.S. PATENT NO. 6,643,287

30. Parity Networks incorporates by reference its allegations in Paragraphs 1-29 as if fully restated in this paragraph.

31. Parity Networks is the assignee and owner of all right, title and interest to the '287 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

32. On information and belief, Defendant HPE, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 1 of the '287 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '287 Patent. Defendant HPE is thus liable for direct infringement of the '287 Patent pursuant

to 35 U.S.C. § 271(a). Exemplary infringing products include the HP MSR Router Series, which utilizes Network Access Translation (NAT) to translate an IP address in a packet header to another IP address.

33. On information and belief, at least since the receipt of written notice and the filing of the Original Complaint, Defendant HPE, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the '287 Patent, including actively inducing infringement of the '287 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that HPE knows or should know infringe one or more claims of the '287 Patent. HPE instructs its customers to make and use the patented inventions of the '287 Patent by operating HPE's products in accordance with HPE's specifications. HPE specifically intends its customers to infringe by providing Network Address Translation (NAT) in its routers.

34. As a result of HPE's infringement of the '287 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT THREE  
INFRINGEMENT OF U.S. PATENT NO. 6,763,394

35. Parity Networks incorporates by reference its allegations in Paragraphs 1-34 as if fully restated in this paragraph.

36. Parity Networks is the assignee and owner of all right, title and interest to the '394 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

37. On information and belief, Defendant HPE, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 1 of the '394 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '394 Patent. Defendant HPE is thus liable for direct infringement of the '394 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the HP 5920 & 5900 Switch Series, which includes ACLs for filtering and dropping of packets based on various criteria including the egress port.

38. On information and belief, at least since the receipt of written notice and the filing of the Original Complaint, Defendant HPE, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the '394 Patent, including actively inducing infringement of the '394 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that HPE knows or should know infringe one or more claims of the '394 Patent. HPE instructs its customers to make and use the patented inventions of the '394 Patent by operating HPE's products in accordance with HPE's specifications. HPE specifically intends its customers to infringe by implementing its routers to perform traffic policing based on a traffic classifier in an infringing manner, as set forth above.

39. As a result of HPE's infringement of the '394 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT FOUR  
INFRINGEMENT OF U.S. PATENT NO. 6,870,844

40. Parity Networks incorporates by reference its allegations in Paragraphs 1-39 as if fully restated in this paragraph.

41. Parity Networks is the assignee and owner of all right, title and interest to the '844 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

42. On information and belief, Defendant HPE, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 1 of the '844 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '844 Patent. Defendant HPE is thus liable for direct infringement of the '844 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the HP 5920 & 5900 Switch Series, which comprise a fabric card with a multicast-capable port. The HP 5920 & 5900 Switch Series supports multicast replication mode for replicating or modifying multicast data.

43. On information and belief, at least since the receipt of written notice and the filing of the Original Complaint, Defendant HPE, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the '844 Patent, including actively inducing infringement of the '844 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that HPE knows or should know infringe one or more claims of the '844 Patent. HPE instructs its customers to make and use the patented inventions of the '844 Patent by operating HPE's products in accordance with HPE's specifications. HPE specifically intends its customers to infringe by implementing routers with a

fabric card including at least one multicast-capable port for replicating or modifying multicast packets.

44. As a result of HPE's infringement of the '844 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT FIVE  
INFRINGEMENT OF U.S. PATENT NO. 7,107,352

45. Parity Networks incorporates by reference its allegations in Paragraphs 1-44 as if fully restated in this paragraph.

46. Parity Networks is the assignee and owner of all right, title and interest to the '352 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

47. On information and belief, Defendant HPE, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 1 of the '352 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '352 Patent. Defendant HPE is thus liable for direct infringement of the '352 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the HP 5920 & 5900 Switch Series, which incorporates ACLs for filtering and dropping of packets based on various criteria including the egress port.

48. On information and belief, at least since the receipt of written notice and the filing of the Original Complaint, Defendant HPE, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the '352 Patent, including actively inducing infringement of the '352 Patent under 35 U.S.C. § 271(b). Such inducements include

without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that HPE knows or should know infringe one or more claims of the '352 Patent. HPE instructs its customers to make and use the patented inventions of the '352 Patent by operating HPE's products in accordance with HPE's specifications. HPE specifically intends its customers to infringe by implementing its routers to perform traffic policing based on a traffic classifier in an infringing manner, as set forth above.

49. As a result of HPE's infringement of the '352 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT SIX  
INFRINGEMENT OF U.S. PATENT NO. 7,468,978

50. Parity Networks incorporates by reference its allegations in Paragraphs 1-49 as if fully restated in this paragraph.

51. Parity Networks is the assignee and owner of all right, title and interest to the '978 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

52. On information and belief, Defendant HPE, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 1 of the '978 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '978 Patent. Defendant HPE is thus liable for direct infringement of the '978 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the HP MSR Router Series, which utilizes Network Access Translation (NAT) to translate an IP address in a packet header to another IP address.

53. On information and belief, at least since the receipt of written notice and the filing of the Original Complaint, Defendant HPE, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the '978 Patent, including actively inducing infringement of the '978 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that HPE knows or should know infringe one or more claims of the '978 Patent. HPE instructs its customers to make and use the patented inventions of the '978 Patent by operating HPE's products in accordance with HPE's specifications. HPE specifically intends its customers to infringe by supporting Network Address Translation (NAT) for use in its routers.

54. As a result of HPE's infringement of the '978 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

## **VI. WILLFUL INFRINGEMENT**

55. By letters dated October 5, 2016 and November 28, 2016, HPE was provided and actually received notice of the Patents-in-Suit, and consequently has actual and/or constructive knowledge of each of them.

56. Notwithstanding this knowledge, Defendant has knowingly or with reckless disregard willfully infringed one or more of the foregoing Patents-in-Suit. Defendant has thus had actual notice of infringement of one or more of the Patents-in-Suit and acted despite an objectively high likelihood that its actions constituted infringement of Plaintiff's valid patent rights.

57. This objective risk was either known or so obvious that it should have been known to Defendant. Accordingly, Plaintiff seeks enhanced damages pursuant to 35 U.S.C. § 284.

**VII. JURY DEMAND**

58. Plaintiff Parity Networks demands a trial by jury of all matters to which it is entitled to trial by jury, pursuant to FED. R. CIV. P. 38.

**VIII. PRAYER FOR RELIEF**

WHEREFORE, Parity Networks prays for judgment and seeks relief against Defendant as follows:

- A. That the Court determine that one or more claims of the Patents-in-Suit is infringed by Defendant HPE, either literally or under the doctrine of equivalents;
- B. That the Court award damages adequate to compensate Parity Networks for the patent infringement that has occurred, together with prejudgment and post-judgment interest and costs, and an ongoing royalty for continued infringement;
- C. That the Court permanently enjoin Defendant pursuant to 35 U.S.C. § 283;
- D. That the Court award enhanced damages pursuant to 35 U.S.C. §284; and
- E. That the Court award such other relief to Parity Networks as the Court deems just and proper.

DATED: December 8, 2017

Respectfully submitted,

/s/ Andrew G. DiNovo

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